

by *Laura Loschke*

DNA testing is a vital and important component in the beef industry. This testing is important for many reasons, but also remember the American Hereford Association (AHA) requires DNA testing to be done on any sire born after Jan. 1, 2011, that is being used to register calves out of, as well as on any dams that are being flushed and having embryo transfer calves registered to them.

The AHA allows several different types of samples to be used for testing. To ensure you're using the best practices when obtaining your DNA samples and mailing them in, follow these tips below for each sample type.

## Sample types

**Hair:** When using hair as your sample type, you'll want to collect the hair from the tail switch. Be sure to pull the hair sample. Do not cut it. You'll need to collect 80-100 hairs to ensure the lab gets the best results. This may seem like a lot, but hair is easily broken, may not have a good follicle on it or could be contaminated. Try to make sure the hair is clean and not contaminated with manure, mud, bodily fluids, etc. If you are using hair as your sample type, it is best to wait until the animal is at least weaning age before taking the sample. Samples taken from young calves, general don't have a lot of follicles and are hard to get a result on.

**Blood Card:** Blood cards can be purchased from the AHA for \$0.50 a piece, with a minimum order of 10. Blood can be drawn using any method deemed desirable. Be sure

to fill the blotting paper section of the blood card with blood and saturate just enough to fill the circle but not enough to make the card soggy. Do not over saturate the blood card, as this could cause a "bad sample" result from the lab. Insert the blood card lid into the top slit so there is room for air to get in. Leave the card in a clean area to dry at room temperature. Do not use a heating source for drying. Once the sample is dry, open the lid and insert it into the bottom slit for storage or shipping. Blood card samples can be collected at any age, so they are a better option than hair if you're needing to test a young calf.

**Semen Straw:** Semen straws can be used as a DNA sample for bulls. They do not need to be shipped in anything refrigerated. They can be room temperature. Semen straws break easily. When shipping them, be sure to put each straw in something protective. An easy way to keep a straw from getting broken is to use an ink pen. Simply pop the top off of an ink pen, pull the ink out, then slide the semen straw down into the pen. The hard plastic of the pen provides protection for the straw in the mail. It's also best to use a padded envelope to send the sample, even if you've put the straw in a pen or some other protective casing.

**Tissue Sample Unit (TSU):** TSUs are the latest form of samples to hit the market. They are a great way to take a sample but, like all samples, are not failproof. In order to collect a tissue sample, you will need to order the proper equipment (tissue sample tubes and tissue sampling applicator (gun). You can order these products directly from AllFlex or through the AHA website and emailing the form to [eartags@hereford.org](mailto:eartags@hereford.org). Again, tissue samples are great for obtaining samples on younger calves because they can be collected at any

age. However, the sample should not be taken immediately after birth. The calf could still have fluids on it that would contaminate the sample. Give the calf at least a few hours to "dry off." When collecting a tissue sample, be sure to wipe the ear clean, but that is it. Using any cleaning products to clean the ear could contaminate the sample. Use a dry cloth or paper towel to wipe the ear. Try to collect the sample from a portion of the ear that doesn't have a tattoo. The tattoo ink could cause the sample to be contaminated and then fail testing. When shipping TSUs, like semen straws, it is important to protect them properly. They should not be sent in a regular envelope, as they can puncture the envelope and then fall out, showing up at the lab with a submission form but no sample. Be sure to send them in a padded envelope or some other form of protective casing.

As always, all samples should be sent in with the corresponding DNA submission form for the specific animal. Forms should be obtained from the AHA before sending the samples into the lab. DNA requests can be made online through MyHerd or by calling or emailing the AHA Customer Service department.

## Reminders

The AHA does weekly evaluations, so the GE-EPDs have the ability to change frequently. Therefore, these are no longer printed on the DNA results statement. The GE-EPDs can be found online through MyHerd or the "EPD/Animal Search" function. Please keep in mind, GE-EPDs will not appear until two weeks after the DNA results are received at the AHA. **HW**

Laura Loschke is the records supervisor and education and information service coordinator of the American Hereford Association. She can be reached at [lloschke@hereford.org](mailto:lloschke@hereford.org).

**Genomic Profile:** \$42  
**Full Package** (Genomic Profile plus H/P testing): \$58  
**Add-On H/P Test:** \$30  
**TSU Credit:** \$4